

THE WHOLE SILO SUBJECT IS LAID  
BARE IN THIS BOOKLET. IT IS AUTHORI-  
TATIVE FROM COVER TO COVER.

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**CYPRESS**

"THE WOOD ETERNAL"

**THE CYPRESS  
"EVEN TEMPERATURE"  
SILO**

**VOL. 37**

**CYPRESS**  
POCKET LIBRARY

Plans herein for Laying Out and Building  
the Most Perfectly Insulated Silo ever  
designed. Will NOT Freeze in Zero  
Weather, Chill when the feed is siloing.  
Blow Down when empty, Nor Blow Up  
when fresh filled—It Is Authoritative.



He Who Looks  
Before He Leaps  
Builds of CYPRESS  
and  
Builds "For Keeps"

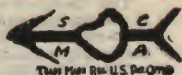
# **PUBLIC NOTICE:**

## ***How you can be sure that CYPRESS is CYPRESS?***

Of course you want Cypress, "the Wood Eternal," for all uses where it represents the highest utility and ECONOMY. But—how are you to know that what you get is *Cypress?* And, if it *is* Cypress, how can you tell that it is the genuine decay-defying

## **"TIDE-WATER" CYPRESS?**

**"TIDE WATER"**  
**CYPRESS MANUFAC-**  
**TURED BY ASSOCIA-**  
**TION MILLS IS NOW**



**IDENTIFIED BY THIS TRADE-MARK**

The **one way** for you to be sure that the Cypress you get was grown in a region near enough to the coast to possess the **MAXIMUM** of decay-resisting quality is to refuse all but genuine "TIDE-WATER" CYPRESS—and the **only way** to know that you're getting *Tide-water* Cypress is to **insist** (and *keep on insisting*) upon **SEEING WITH YOUR OWN EYES** the **REGISTERED TRADE-MARK** of the Southern Cypress Mfrs. Assn., stamped *ineradicably* in *one or both ends* of **EVERY CYPRESS BOARD OR TIMBER**, and on **EVERY BUNDLE** of "small sticks" such as flooring, siding, moulding and shingles. This is the mark to **BUY BY**—now that every piece of the **TRUE "Wood Eternal"** made by a member of the established and ever-watchful Association is at once *identified by its maker* and "**O.K.'d**" by the Association mark. **"Buy by the Cypress Arrow."**

# **AN IMPORTANT FACT:**

## **A FEW WORDS EXPLAINING WHY** **"ALL-HEART" CYPRESS SHOULD BE** **SPECIFIED FOR NON-ROT USAGES.**

All trees, in terms of lumber contents, consist of two parts, the "heart" material, or mature wood constituting the inner bulk of the trunk, and the series of rings (of solid wood—not bark) known as "sap," which vary in thickness from one inch to four inches, or thicker, and which are the newer growth, and which, in due course, will become an addition to the "heart" wood, and be, in turn, replaced by still newer "sap" growth beneath the bark of the expanding trunk.

The "heart-wood" of almost all trees is somewhat darker in color than the "sap-wood," and in most species is easily distinguishable.

"Sap" cypress, like the sap part of all other woods, is less solid and compact and therefore is not recommended for special endurance against decay. It has not yet enough of the singular essence known as "cypressene" to adequately protect it from decay germs, and in this respect is not conspicuously more enduring than the corresponding part of other trees. The "HEART-WOOD" OF THE CYPRESS is, however, thoroughly impregnated ("vaccinated," as it were), and it is the ALL-HEART WOOD OF CYPRESS that has made its historic fame as "the wood eternal."

It is obvious that for numerous uses the sap material is just as good as the heart, but for those uses where resistance to decay is a vital factor it is essential that "ALL-HEART" be specified. Best let your contractor or dealer know that you know this, when ordering.

UNDOUBTEDLY THE SILO PROPOSITION IS THE  
LARGEST ECONOMIC DEVELOPMENT OF THE  
LAST FIFTY YEARS. THIS BOOKLET WILL TELL  
YOU ALL YOU NEED TO KNOW ABOUT IT.

THE  
**CYPRESS**  
"EVEN TEMPERATURE"  
**SILO**

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VOLUME 37  
CYPRESS POCKET LIBRARY

*Eight Working Plans*  
*Detail Drawings*  
*Specifications*

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SPECIAL ATTENTION IS HERE CALLED TO THE  
PERFECT INSULATION PROVIDED FOR IN THIS  
FORM OF CONSTRUCTION. DEAD AIR SPACE,  
WITH A WOOD WALL EACH SIDE, MAKES THE  
EXCLUSION OF HEAT AND COLD IMPOSSIBLE.  
*This is the first essential to the successful Silo.*

**SOUTHERN CYPRESS MFRS.'**  
**NEW ORLEANS, LA., AND**  
**JACKSONVILLE, FLA.**

Reprint, May, 1917.

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# CYPRESS

## "EVEN TEMPERATURE" SILO BOOK

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# CYPRESS

## "EVEN TEMPERATURE" SILO BOOK

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# OTHER BOOKS

IN THE CYPRESS POCKET LIBRARY THAT  
WILL BE OF REAL VALUE TO THE  
FARMER AND HIS FAMILY

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Vol. 4, The Barn Book, containing plans, detail drawings and full specifications for building three bully barns and an 8-horse stable. It's free.

Vol. 20, The "All Farm Needs" Book, which gives you plans for three barns, a hog house, a double corn crib, a poultry house, a small greenhouse and a silo. It's big and free.

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Help yourself to these books.



## **JUST TO START THINGS**

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It was inevitable from the very inception of the CYPRESS POCKET LIBRARY that sooner or later a real silo book should be brought out. The necessities of the case required that this should be somewhat exhaustive in its nature, as the subject is the most interesting one now before the farmers of the country, and the interest reaches away beyond the farmers. The economists of the world are studying the subject and are already forecasting the marvelous benefits that are to eventuate with the perfection and general use of the silo. Transportation companies, the great provisions producers, as well as the merchants who sell provisions to the consumers, are all deeply interested in silo.

Because of this wide study of and vital interest in the silo, it has been deemed advisable in this book to go into the subject to a degree that has not been undertaken in any topic treated in the other volumes of the Library. This may be because the subject, with its economic possibilities, is the largest subject yet treated in the CYPRESS POCKET LIBRARY.

## **CYPRESS** SPECIFY IT— INSIST ON IT

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HORSE BARN. PLANS IN VOL. 4, FREE.

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In any event, in placing this booklet before the farmers and others who see fit to read our treatment of the subject, it has been our pleasure and desire to give them a treatise that is surely worth their time to read and study. We have aimed to make this book, like its companion volumes, authoritative in its field.

Whether our readers agree with us or not in regard to the form of silo construction we have seen fit to champion, we feel certain that they will profit by the perusal and perhaps many will profit by our line of argument.

Anyway, we ask a careful and judicial reading of the booklet from any one into whose hands it may fall.

## SILO NEW; THEORY OLD

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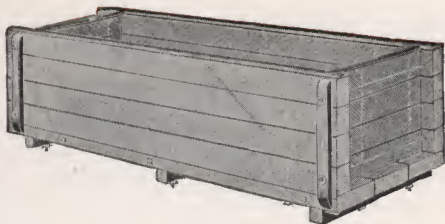
It is claimed by those who seem to know, that fodder properly put away in pits has been known to keep more than 100 years. This was known before the silo, as we now see it, was so much as thought of.

"The Greeks and Romans preserved green forage in pits dug in the earth, and the first silos in northern and western Europe were of this type. Next, silos were constructed partly in and partly above the ground. But there is greater convenience in handling silage when the silo is built entirely above the ground."—*California Country Journal*.

The silo, as an institution for preserving feed in a more or less green state for use during the winter months, is less than forty years old. It is claimed that the first silo was built in the year 1875. For a time the industry of building silos moved very slowly; probably most silos were built in the earlier days by agricultural colleges and experiment stations. The Wisconsin College of Agriculture put up its first silo in the year of 1881, and although Wisconsin is a great dairying state, it

## **CYPRESS** STOPS PROPERTY DEPRECIATION

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CYPRESS WATER TANK. BEST, BECAUSE  
LASTS LONGEST.

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is probable that the first silo in that commonwealth was the one built at the agricultural college above mentioned.

Of late years the industry of silo building has thrived very much; perhaps there are today no less than fifty large manufacturing concerns in the country that have little other business than that of manufacturing and erecting these feed containers. It is said that the first silo was built of wood, but of that we are not accurately informed. Be that as it may, the silo built by the College of Agriculture in Wisconsin was of stone, and, like many others of the same kind of construction, it was a failure from the first.

## **"BUILD BUT ONCE" — USE CYPRESS**

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It is probably true that today a majority of the silos being built are of wood construction, in spite of the persistence with which the organizations behind concrete, tile and metal construction are pushing those classes of wares, but the wood silo is certain to be the one of the future. It possesses every element desirable for the preservation of the feed. It is more cheaply and easily constructed and if of the right style of architecture will match the other buildings on the farm.

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Cypress is the "Gopher Wood" of the Bible. Noah built his ark from this wood, and since that time Cypress has been famous. The ancient Egyptians used it for burial cases for their mummies, and these receptacles have been dug up that are known to have lasted more than 4,000 years. That is a record for endurance. History is filled with the fame of Cypress as the wood that resists rot influences.

## **SILO SUPERSTITIONS**

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There are many laughable superstitions about silos and silage which perhaps would be amusing if they did not prevent many farmers from making a greater net profit than they do now. Among them is the idea that silage acid destroys horses' teeth and cows' stomachs, and there are hundreds of silos abandoned in the country for all kinds of absurd reasons. As a matter of fact, none of these stories have the slightest foundation in fact, according to Mr. M. L. King, who gave a lecture on the construction of silos at the Illinois Farmers' Institute at Sterling.

He characterized the superstitions mentioned above as absurd, untrue and ridiculous, and said that he and other experts for years had tried to find verification of any of them and that as a matter of fact, the acid in silage was one of the weakest known to scientists and not capable of destroying anything. (He should have excepted alkali mixtures.)

Then there are some prejudices regarding silos that are well founded. For instance, that the acid in silage will

**INVEST—DON'T  
SPECULATE. USE CYPRESS**

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FULL BUILDING PLANS IN VOL. 20, FREE.

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neutralize cement and cause it to sluff away.

It is claimed by the cement interests that the acid in silage is weak. That makes no difference; any acid will work in an alkali—they are combative properties, as everybody knows. Fire and water will mingle as harmoniously as will acids and alkaloids.

Besides this, the alkali in cement destroys, or neutralizes, the acids in the silage next the concrete wall and causes the feed to rot.

This prejudice against concrete silos, unlike the superstitions above mentioned, is founded on science and practice, and is worth listening to.



## **INVESTMENT VALUE O F    T H E    S I L O**

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So much has been printed in the last few years relative to the investment value of the silo on the farm, it seems almost unnecessary in this booklet to discuss that subject at all. However, the following item, which recently appeared in an agricultural paper, is so straight to the point that we feel as if it should be printed herein:

“At the Farmers’ Institute meeting of 1913 at Sterling, Illinois, Mr. L. D. Seass made an address on the financial side of the silo. Among other good things he said that any silo in the first year would pay 100% net profits, no matter how poorly it was constructed, and that where good methods are used and more permanent structures are built, they frequently pay over 100% the first year, and (of course) the gain every year thereafter was absolutely a net gain. That the Illinois farmers should build silos if they had to borrow the money, and there was no reason why a bank should not loan on a silo, which even at the worst was an investment showing a profit of 100%. Where



## **"BUILD BUT CYPRESS ONCE" — USE**

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permanent construction was used it was made a comparatively permanent asset."

Mr. Seass continued and said that the worst silo of the worst material ever built, holding the poorest silage, was better than that of the best feed in winter which could be obtained in Illinois by any other means.

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One ton of hay occupies 400 cubic feet of space; eight tons of silage occupy 500 cubic feet.

One ton of hay contains 1,600 pounds of dry matter; eight tons of silage contain 3,360 pounds of dry matter.

An acre of corn made into silage will produce more feed than four acres of clover hay. When you install a silo you can keep and properly feed five cows where you now can keep only one.

Nothing but economy in the silo game, if you have one that will not freeze, sluff off, or chill the silage at siloing time.

## **BILLION DOLLAR WASTE**

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For many years one of the serious problems that has confronted the thoughtful business-man farmer is that of waste. Undoubtedly, the one item of corn stalks has cost more annually than any other product of the soil. This is especially true in the corn-producing states like Iowa, Missouri, Illinois and Indiana, but in proportion to the quantity produced the problem has been equally serious in every other state east of the Rocky Mountains.

Experiments have been going on for many years, seeking to find some use for the corn stalks, rather than to have them kicking about in the way until they shall have sufficiently rotted to be plowed under so that the residue may go back into the soil which produced it. Every little while we see that some one has discovered a process for making corn stalks into some kind of manufactured article. The most frequent announcements couple up this billion-dollar waste with the paper industry, and while, no doubt, corn stalks could

## **BEST FOR "ALL OUT-DOORS" CYPRESS**

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be manufactured into paper, the processes so far developed are so expensive as to render their operations impossible.

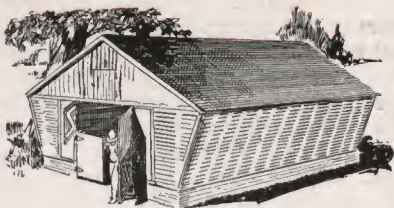
It looks now as if the silo will accomplish the salvation of, at least, a part of this frightful waste. It looks as if land that has been growing corn in large quantities for many years without cessation may be turned into other uses, because with the silo perfected and properly handled there will be less need for corn as stock feed. In other words, five acres of corn converted into ensilage will feed as much stock as would twenty acres of corn fodder used after the old style.

It is clearly demonstrated that ensilage may be fed to hogs as a part of the daily ration; that steers may be fattened upon it and become a high class of merchantable beef; that horses do well upon it and continue in strength and vigor as well as if they were fed the best of hay and dry corn. Of course, the horse, the steer and the hog will require other feed than ensilage, but the quantity of dry corn necessary may be cut more than half.

Therefore, it is safe to say that in the near future many of the great corn farms of the corn belt of the United

## **CYPRESS THE WOOD THAT LASTS**

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PLANS IN VOL. 20. GET VOL. 20. FREE.

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States will, to a considerable extent, be put down into grass for summer pasture. The best authorities seem to agree that with a silo in successful operation the dry feed on the farm may be reduced from twenty-five to fifty per cent and the stock will be improved because of the change of the ration. While this change represents very much of an economic revolution, perhaps the most violent economic revolution that has ever come to the farming industry, it undoubtedly represents an enormous saving, not alone of the waste of a good part of the farm products, but of human energy.

It requires a little time and sprightly work to fill a silo, but what is that compared with the drudgery of cutting corn, setting into shocks, husking it out

## **INVEST—DON'T SPECULATE. USE CYPRESS**

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and hauling the fodder? The silo is filled late in September when the weather invites physical energy and activity, whereas haying time, with all its annoying conditions, comes when the sun is the hottest and very often when the showers are most frequent. To save this one waste of hay, because of unsuitable weather at haying time, is a great economic triumph.

We are not here to say that the silo will entirely do away with haying on the farm, but experience already shows that this wearing and annoying operation may, at least, be cut in half. So far as the work of corn harvesting is concerned, the silo saves at least two-thirds of that and produces better results to the live stock on the farm.

In the recent editorial, in *Farm News*, we read this:

"All the great industries depending on live stock, such as the stock yards, creameries, packing houses and transportation companies, are advocating its use. It is a conservation subject of great importance, for with it can be saved a large part of our principal crop. Nearly 40% of the food elements of the corn crop of this country are now wasted."

## **YOU NEED A SILO**

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A recent issue of the *Arkansas Farmer and Homestead* contained this striking head-line, displayed in heavy type:

**"FARMERS WITHOUT SILOS ARE  
20 YEARS BEHIND THE  
TIMES."**

This is the statement of Prof. Martin Nelson, director of the Arkansas College of Agriculture, and in the article which followed this heading he proceeded to make good his contention.

This seems to be about the condition of the case. One can scarcely open an agricultural paper without reading abundant evidence that the silo has done more to emancipate the farmers of this country from the drudgery incident to general farming than any other modern institution. In its issue of March 8, 1913, the *Northwestern Farmstead* prints a communication from W. D. Hall, Grant County, South Dakota, which reads as follows:

"I am using a silo for the first time this year and if I were to start out on a new farm today the first thing I

## **"B U I L D   B U T O N C E" — U S E   CYPRESS**

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would do is to build a silo. I wonder now how I ever got along without one."

From the *Country Gentleman* that strong eastern publication devoted to the farm, in its issue of March 8, 1913, the following resume of a young farmer's experience up in County Glengarry, Province of Quebec, Canada, is taken:

"Now to show how much this silo saves me. In previous years it took all we grew on the farm, straw and hay, to feed the stock and only in exceptional years did we have a ton of hay left over. But the year I bought the silo I had ten tons of good roughage left over, which I could have sold for \$15 a ton, making \$150, almost enough to pay for my silo the first year."

This young farmer's experience covered the setting up of a silo and filling of it, which, altogether, cost him \$198. He told, in the body of his communication, how much greater was the milk flow from his dairy herd all through the winter and in how much better condition his cows came out in the spring than they had done before he built his silo.

The experience is universal wherever farmers have adopted the silo plan of feeding.



## **MANY THINK THEY CANNOT AFFORD IT**

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With all the need of a silo on the farm, there are many farmers who think they cannot afford to build one, and there is abundant reason for a small farmer to hesitate before he places an order for a ready-made silo of any of the approved makes. There is also abundant reason for the owner of a small farm to hesitate before he undertakes to build for himself a concrete or cement silo. The principal reason for this hesitation is the cost.

When the owner of a small farm of forty or sixty acres has to pay out from \$300 to \$500 for a ready-made silo, he is justified in going over the matter very thoroughly before he undertakes it. This is especially true if he has in mind the buying of a stave silo made of any of the commercial woods, with the one exception of Cypress.

When a silo made of other wood than



## **BEST FOR "ALL OUT-DOORS" CYPRESS**

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FOR PLANS OF HOG HOUSE SEE VOL. 20.

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Cypress costs about \$300 completed, and the owner thereof, if he is well informed, understands that it will last not more than ten years at the best, the cost for the improvement is altogether too high. Of course, with Cypress it is decidedly different, because of the known lasting qualities of the "Wood Eternal." A silo made of heart Cypress should have a life of at least twenty-five or thirty years. Besides the endurance of the wood, there is the other special value of its being less subject to shrinking and swelling than are those woods that are used as a substitute for Cypress.

## **CYPRESS SPECIFY IT— INSIST ON IT**

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It is not claimed that Cypress will not shrink or swell to a normal extent with dry and wet weather periods, but if the improvement is made of clear heart Cypress, then the action of the weather is much less violent on this than on any other wood.

While it is claimed herein that the stave silo is not the very best form of construction, especially for sections of the country that are exposed to extremes in cold, yet if one is disposed to set up a stave silo, this booklet urges that none other than Cypress staves be used.

To those who cannot afford to buy a stave silo ready made, especially a silo made of Cypress staves, this booklet shows a way for a much cheaper form of construction, and one that has given the utmost satisfaction to those who have tried it. By that is meant the Cypress "EVEN TEMPERATURE" silo. Later on in the book, full details will be found for its construction, as well as abundant proof of its practicability.

## **COST OF FILLING A SILO**

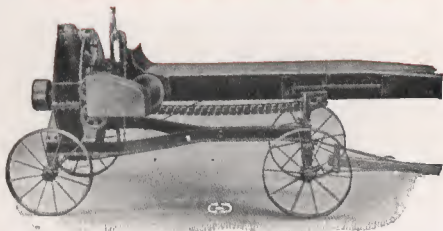
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Farmers' Bulletin No. 32 states that in the writer's experience in the central West, the cost (of silage) on high-priced land has been about \$1.50 per ton. F. S. Peer, in a recent book which treats of silos and silage, gives the cost in his experience as \$1.20 per ton.

Professor Wall of Wisconsin University placed it at \$1 to \$1.50 per ton, including cost of seed, preparation of land, interest on investment, cultivation of crops and cutting and filling the silo. Mr. James Dorsey of Gilberts, Illinois, puts the full cost at \$1 per ton in his section of the country.

Some years ago silage cost \$1.50 per ton at the Purdue Experiment Station, and farmers in various parts of Indiana estimated the cost of their silage at from 50 cents to \$2 per ton.

For all the variety of opinions and estimates it may safely be put down at \$1.50 per ton. Think of the difference



A SILAGE CHOPPER.

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in food value between a ton of silage and a ton of dry hay! And then think of the difference in cost between a ton of silage and a ton of hay.

The farmer who sticks to hay, without silage, is at a ruinous disadvantage. He may think he can compete by the use of sheer physical force, but this is not the day of physical force; this is the day when mind is controlling all the physical forces. He who would succeed must, through enlightenment and scientific methods, utilize all forces with which he is in contact.

## **CHEMICAL CONSTITU- ENTS OF SILAGE**

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Professor Henry, undoubtedly one of the greatest authorities on the chemical constituents of feed, has prepared a little table which shows the comparative value of ensilage and pasture grass. It is universally admitted that pasture grass is the best and most natural food for stock, and while, even in summer, a little ensilage may be mixed with the grass feed and help the milk flow in dairy cows, it is difficult to improve upon the pasture grass ration. Here follows the table prepared by Professor Henry and it is worth a careful study:

	Pasture Grass.	Corn Silage.
	Per cent.	Per cent.
Water .....	80	79.1
Nitrogen extract ..	9.7	11.3
Crude fiber .....	4	6
Ash .....	2	2
Ether extract ....	.8	.7
Protein .....	3.5	.9

## **CYPRESS** **STOPS PROPERTY DEPRECIATION**

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It will be seen that the silage is a bit low in the one item of protein, but inasmuch as silage-fed stock is given some dry feed also, this defect, which is perhaps peculiar to corn ensilage alone, may be balanced by a certain allowance of hay, especially clover hay. The protein in red clover and alfalfa runs quite high and by the use of either of these for the dry feed portion of the daily ration the cow will get all she needs of this very desirable food property.

This consideration of the chemical constituents of silage has been based almost entirely on its value for dairy stock. It must be remembered, however, that silage has proved equally good for fattening steers, sheep and hogs, and in small quantities it takes the place of dry grains for horses. It is coming to be an all-around feed for the live stock on the farm of the progressive farmer; even the hens like it and thrive on it.

## **ENSILAGE PRODUCES MILK AND BEEF**

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So much has been published in the farm papers relative to the milk-producing value of ensilage as a part of the daily ration for the dairy cow that it seems scarcely worth while to give the testimony of more than one authority, and at that it is scarcely possible to produce more than an outline of the many scientific deductions that have resulted from wide experimentation along this line.

It is stated for a fact, and no doubt is true, that butter fat is produced at a cost of \$0.131 per pound with silage.

It is also stated on what seems to be equally good authority, that without ensilage the cost is \$0.221, almost a doubling of the production cost of butter fat to the farmer.

By the same statistics it appears that milk has been produced with ensilage as a part of the ration at the cost of \$0.677 per 100 pounds; without ensilage, and with other conditions favorable, the cost per 100 pounds of milk is \$1.055.

Almost equally good results have been produced with beef stock when ensilage



## **CYPRESS THE WOOD THAT LASTS**

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UNIVERSITY OF NEBRASKA PRIZE STEERS.  
SILAGE-FED.

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has been fed as a part of the daily ration. More than this it is claimed that ensilage-fed steers, on the open market, bring from 25 cents to 50 cents per 100 pounds premium over stock that has been fed on dry feed. This, no doubt, is due to the sleek and smooth condition produced by the green feed.

Professor Evard of the Iowa State College made a test and reported that the silage-fed steers put on gains at a



**INVEST—DON'T  
SPECULATE. USE CYPRESS**

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net cost of \$2.01 per hundred pounds less than steers fed on clover hay. He contends that the best lot of silage-fed steers made a profit of \$23.46 per animal as against \$17.27 for steers fed on clover hay.

While the average daily ration for a dairy cow is 40 pounds of silage, fattening stock is fed from 22 to 30 pounds of silage per day for each animal. In addition to this a small quantity of dry hay is fed, together with chopped corn and a little cotton-seed meal.

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HERE IS A TABLE; STUDY IT BEFORE BUILDING.

Kind of Stock.	Feed, lbs. per day per animal.	For 200 days. Lbs. per animal.
Dairy Cows .....	40	8,000
Beef Cattle .....	35	7,000
Horses .....	15	3,000
Sheep, Ewes .....	4	800
Sheep, Lambs .....	2	400
Swine .....	4	800
Poultry, 100 Fowls.....	15	3,000

## DAIRY FARM PROFITS

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We read much these days in the papers, and not farm papers alone but in general magazines and daily papers as well, about the profits that are going to the dairy farmers. That excellent farm publication at St. Paul, *The Farmer*, recently made a thorough investigation of conditions in the industry in Todd County, Minnesota, and gave publicity to the following facts and figures.

It seems that Todd County is not really one of the leading dairy counties in the Gopher state. There are only nineteen creameries in the bailiwick, but these are all co-operative. These nineteen creameries paid out to their patrons for milk and butter fat during the year 1912 the enormous sum of \$1,082,573.08.

It seems that the first co-operative creamery was established there only thirteen years ago and the industry has developed to its present immense proportions from that recent beginning.

At the time the first creamery was put in, farming land in Todd County was worth from \$5 to \$35 an acre. To-

**"BUILD BUT CYPRESS  
ONCE"—USE**

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JERSEYS LIKE SILAGE.

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day farming land in Todd County, Minnesota, is worth from \$20 to \$95 an acre.

And this is only a part of the showing. In March, 1899, the year before the first creamery was established, the total bank deposits of the county were \$164,660.11; in March, 1913, after thirteen years of successful dairy farming in that county the bank deposits aggregated \$1,641,132.58. This is practically 1000% more than it was thirteen years ago.

## **ANOTHER ILLUSTRATION**

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We have not at hand now the figures relative to Richland County, Wisconsin, one of the best dairying counties in the leading dairying state of the Union, but conditions there are much more satisfactory and profitable than in the case of Todd County, Minnesota. Richland is not a large county, being composed of only 16 townships, and at least 80% of the surface of the land is quite broken. But these hills are covered with a splendid native grass that makes excellent pasturage during the summer time, and the dairy farmers there are amongst the most intelligent and progressive anywhere to be found.

Two years ago there were in Richland County something more than 90 creameries and cheese factories, nearly all of them small, as is necessarily the case in a hilly country. Farmers cannot haul their milk and cream a long distance over the hills.

The income from cheese factories and creameries two years ago was quite a bit more than a million of dollars. The sale of beef cattle and calves from that county during the same year aggre-

## **THE WOOD THAT LASTS CYPRESS**

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SILAGE-FED SHORT HORN.

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gated more than one million of dollars.

This brief statement relative to Richland County, Wisconsin, is enough to show that dairying in its two branches, butter making and cheese making, is one of the most profitable industries the American people are now engaged in. It seems to be pretty well established that so far as profits are concerned there is a small difference between the creamery and the cheese factory.

Certain it is neither industry has been overdone in America, and the prospects for the future need not discourage anyone from engaging in dairying.

## **BEWARE OF SPOILED SILAGE**

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Testimony is multiplying almost every day regarding disastrous effects to live stock from the feeding of frozen or mouldy ensilage. The winter of 1912-1913 seems to have been an unusually severe one on silos, especially those built of concrete, brick, tile and metal. The farm papers during the spring of 1913 contained a great many articles giving the experiences of farmers who had either deliberately fed frozen silage or had left it around where poultry or stock could get to it.

One farmer in northern Illinois, who had, as we now remember it, a tile silo, reported that he had lost a large quantity of feed by freezing. He removed the spoiled silage and threw it out upon the ground. Later on his hens picked at it and a large number of them died from the effects. Evidently the ensilage undergoes some sort of a chemical transformation by reason of the freezing and what was once a wholesome food becomes a deadly poison.

In *The Farmer*, St. Paul, in its issue of June 28th, 1913, appeared the following communication:

*Page Thirty-four*

## **INVEST—DON'T SPECULATE. USE CYPRESS**

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"Horses should be kept away from places where decomposed, frozen or waste silage may have been thrown out. There is no cure for such trouble when a horse gets too much of it. Greedy eaters will take to poor silage as well as good, and it is in such cases that the greatest care must be taken. If there are any readers who have been able to cure a horse of such trouble, caused by eating poor silage, I will be pleased to have him give his experience; also the remedy. The writer has lost two valuable horses through this cause by their gaining access to some silage that had been wasted.—A. O. T."

There seems to be but one way around this whole business of lost ensilage, and that is to put up a silo from a good wood, like Cypress, and by perfect insulation, possible only by a dead air space between a double wooden wall, make it so that it will resist the extremes of cold as well as the extremes of heat, and then, by careful filling, no waste should follow. The principal waste comes through freezing. An "EVEN TEMPERATURE" silo is positive proof against the action of the frost upon the contents of the silo.



## **THE COST OF SILAGE**

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Aside from its superior value for feeding, especially to dairy cows, ensilage has a value that may be expressed in figures. We have seen a large number of estimates on this subject and have selected for use in this booklet those issued by the Nebraska Agricultural Experiment Station, Bulletin 101. In this table, which was made up two years ago, it gives the following relative to costs for the different kinds of feeds used on the farm:

Corn .....	\$12.00 per ton
Oats .....	18.75 per ton
Linseed meal....	32.00 per ton
Corn silage.....	1.75 per ton
Alfalfa .....	6.00 per ton
Pasture .....	1.00 per ton

Average cost of corn silage seems to be \$1.50 per ton.

Some farmers are so short-sighted as to say in effect, "I have the feed, I raised it and harvested it myself, and I shall feed it out. The matter of cost is nothing to me."

But that kind of a farmer is not the



**"BUILD BUT  
ONCE" — USE CYPRESS**

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**JUST RIGHT FOR SILAGE.**

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one who is prosperous enough, even in these days of lavish prosperity among his class, to ride in his own automobile, and to have his house equipped with running water and other modern conveniences. The farmer who is riding in his own spot-cash auto is the one who figures his costs as carefully and as closely as does the successful merchant in the village or the large city.

Take, for instance, the farmer who is feeding 30 pounds of hay to a steer and the hay costs him \$6.00 a ton; he

## **CYPRESS STOPS PROPERTY DEPRECIATION**

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is giving to that animal 9c worth of feed; 8 pounds of cornmeal a day costs him 8c; 4 pounds of oil meal per day, 6c—a total of 23c per day on the one steer.

Compare with this the total ration to the same steer if fed ensilage. Forty pounds of ensilage stands to cost 4c, a little less; 10 pounds of hay 3c; 4 pounds of chopped dry corn, 4c; 2 pounds of oil meal, 3c—making a total of 14c.

We submit that the man who does not figure costs, but because he raises his own feed may use it as he sees fit, has no place to get off in this competition. The man with a silo, as mentioned above, beats him 9c a day per animal, which in itself is a whopping good profit.

This about marks the difference between the old style of farming and the present up-to-date, scientific, business-like farming. This change in methods places the modern farm alongside the up-to-date department store, and leaves the old system to match the peanut stand.

## **THE WOOD THAT LASTS CYPRESS**

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### **AS TO STAVE SILOS**

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This booklet is not intended to attempt to prove that a stave silo is not desirable. It may be cheerfully stated that if the material from which a stave silo is built is of clear heart Cypress bought of a thoroughly responsible firm which uses only Cypress that has been completely air-dried before it is put into construction, there should be no reason why it will not preserve ensilage perfectly, nor is there any reason why it will not stand up against drought and wind and last longer without repairs than almost any other type or kind of silo.

Probably the most common complaint against the stave silo is that it dries out as fast as emptied, and unless the hoops are kept in a constant state of tension it is liable to collapse, or to be blown down when empty or nearly so. Cypress wood is less subject to shrinkage and swelling than any other wood now

## **CYPRESS BEST FOR "ALL OUT. DOORS"**

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AND THE PIGS LIKE SILAGE.

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on the market, and heart Cypress, when thoroughly dried, will show little of the effects of drought and moisture.

In this connection it may be well to cite a contributed article which appeared in *The Nebraska Farmer* in its issue of April 23rd, 1913, giving an account of a wooden silo that in six years had blown down twice, and had shrunk in circumference 13 inches. A letter from the contributor of this news item gives the information that this silo was not of Cypress.

Perhaps the majority of manufacturers of stave silos use cypress staves when the buyer is sufficiently educated

## **INVEST—DON'T SPECULATE. USE CYPRESS**

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on lumber values to insist on having that kind of material. Of those silos nothing ill can be said. They are better than silos made of any other wood for resisting shrinking and swelling, and they are certain to last long enough to give the buyer a genuinely good value for his investment. It will be noted by every person who reads the catalogues of those manufacturers who put out Cypress staves, that in all cases they are given the preference, and are recommended above any other kind of wood. There is no reason for this preference except that the manufacturers know they will return to the buyer a greater investment value than staves made of any other known wood, and thereby add to the maker's reputation for superior value-giving. It is "good business." That is why they do it.

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Do you think a square cistern will spoil rain water? Then why should a square silo spoil silage? It's a superstition.

## **DOORS FOR THE SILO**

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(This is important.)

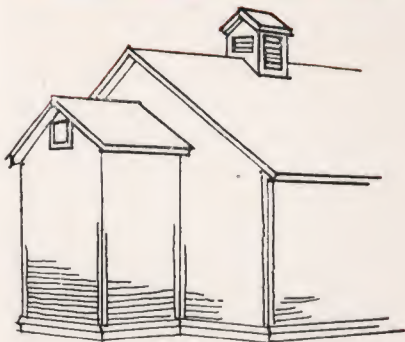
While it may be, as some are contending, that altogether too much prominence is given to the door of the silo, there remains the fact that undoubtedly the best kind of construction calls for a practically air-tight door. Many farmers contend that this notion of keeping the air out of the silo is all moonshine, yet the consensus of opinion seems to be that there should be at least no circulation of air in the structure.

It is about impossible to totally exclude the air. Nobody expects to see a silo built which is in fact a vacuum, except for the space the feed occupies, but while it may not be possible to exclude all the air, it seems to be very desirable that there should be no draft inside the building.

It is perhaps a fact, as some farmers claim, that the silo manufacturer who

**"BUILD BUT  
ONCE" — USE CYPRESS**

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DOORS OPEN INTO THE BARN.

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has the patented door is the one who talks most vehemently of the desirability of "air tight" construction at this point. While it may be desirable to build the doors so that air will not pass out and in when they are closed, it may be possible to accomplish the same results without a patented contrivance.

There are many who believe that any door which is so adjusted that it



## **CYPRESS STOPS PROPERTY DEPRECIATION**

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will practically exclude the air will do the business.

In this connection it is safe to say that any door which is built with shoulders on it, like the door of a safe or of a refrigerator, will serve every purpose. This, of course, should open to the inside, and may be hung on hinges, or set out, but should need no other support than that which comes of it being set in position. For the Cypress "EVEN TEMPERATURE" silo this style of door is suggested. Make it with one or two shoulders, and have the jambs so constituted that they will receive the shoulders properly, and then if one would have it absolutely air tight, he may cover the edges with a felt or cloth, and this is sure to prove effective in every way.

Of course, it is always desirable that not alone the door, but the jamb as well, should be made of a lumber that shrinks and swells very little. Heart Cypress perhaps stands up

## **THE WOOD THAT LASTS CYPRESS**

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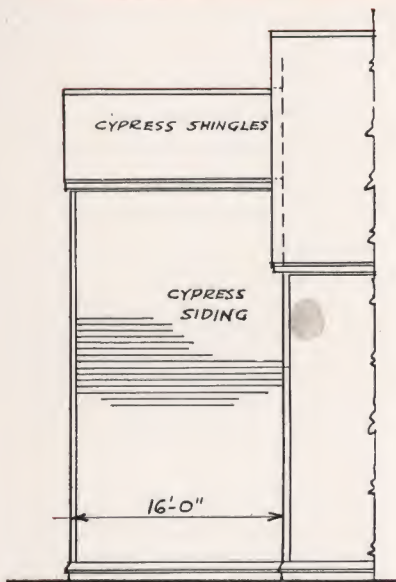
against the action of the elements better than any other commercial wood. For that reason, it is especially desirable that doors and jambs of the silo should be made of this estimable species of lumber.

In the supplement, which is folded into the back of this booklet, will be found drawings for the door which has given excellent satisfaction to those who have used it. This practical, efficient and economical door design is the work of Mr. D. P. Barry, of Redford, Clinton County, New York.

Mr. Barry brought the square outside and octagon interior silo into prominence by contributing drawings and details for its construction to the *Building Age*, a contractors' paper published in New York City. He has built a number of these in his section of New York, and vouches for their satisfaction. He says this door

## **CYPRESS** † BEST FOR "ALL OUT-DOORS"

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### • SIDE ELEVATION •

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is all right in every respect, is simple of construction, and is easily adjusted from the inside of the building.

## **SILO MUST BE OF WOOD**

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One who has read the foregoing chapters relative to cement, tile, brick, stone and metal silos, and who has kept up with the reports that have been published from time to time in farm papers relative to these forms of construction, must be well convinced by this time that wood is the only substance from which a perfect silo may be built.

Wood is the only perfect non-conductor of heat and cold that has yet been used in silo construction, and all experiments point to the fact that the silo which is so made that the heat generated by fermentation may pass out and be lost, and the cold that is in the outside atmosphere conducted within, is a very poor substitute for wood.

While it is no easy matter to drown the persistent clamor made by the cement industry in favor of that prod-

**CYPRESS** SPECIFY IT-  
INSIST ON IT

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## ACTUAL PHOTO OF CONCRETE COLLAPSE

(Name of owner withheld by request.)



*This silo not only spoiled itself, but look at the damage to adjacent buildings. Wood silos prove up best, and CYPRESS is the best silo wood there is.*

*Page Forty-eight*

## **"BUILD BUT ONCE"—USE CYPRESS**

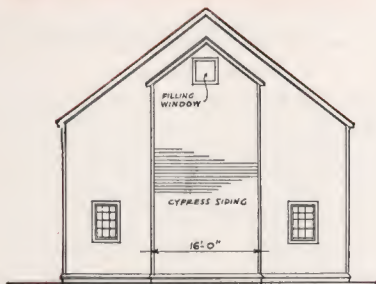
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uct, we feel that the truth will eventually triumph. Cement is undoubtedly a great substance for certain kinds of work, although it is difficult to find a place in which it makes a perfect and complete substitute for wood. The best authorities are coming out stronger and stronger for wood, and it is very evident that the time is not remote when the clamor for cement shall subside, and the real truth shall be universally known and accepted.

Wood is the only substance of which a perfect silo may be made. This the reader may put down for an axiom which cannot be controverted successfully. Other substances are substituted, but none of them has yet been demonstrated to be more than one-half a complete substitute. Of all the woods, Cypress is the only one now on the market which possesses sufficient qualities of endurance to make it a genuine silo wood. As there is no substitute for wood in silo construc-

## **CYPRESS** STOPS PROPERTY DEPRECIATION

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*-END ELEVATION-*

### GABLE ROOF SILO ADDITION TO BARN.

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tion, so there is no substitute for Cypress amongst the woods which usually go into silo construction.

Concrete does not embody any of these essential elements. It is 17 times a greater and quicker conductor of heat than is wood. A two-inch wood wall is as impervious to heat and cold as is a 34-inch concrete wall.

Heat is the fundamental factor in silage. During the fermentation period, lying next to a stone, concrete, brick or tile wall, the silage loses a great amount of heat by conduction through the wall.



## **SILO NOT NECESSARILY ROUND**

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In a recent letter from a farmer who built for himself a square exterior and octagon interior silo, which he has used very successfully, and who built for a near-by neighbor a square silo that is also square within, and which is now in successful operation—in a recent letter, this man writes to us:

"I SUPPOSE IF ONE BUILT A SQUARE CISTERN, THE WATER WOULD SPOIL."

While this is not a perfect simile, there is in it a large element of truth. So many manufacturers of silos insist that they must be round, and so many of the authorities on the silo theory contend that the silo must be round, that it has come to be almost a universal belief that if a silo is in any other form than circular, dire results are always bound to follow.

As a matter of fact, it will be hard to contend that ensilage will not keep as well in a square or octagon silo as it will in a round silo. It will be hard to demonstrate why ensilage will not

## **CYPRESS THE WOOD E T E R N A L**

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**SILAGE PUTS THE WHOLE FAMILY AT WORK.**

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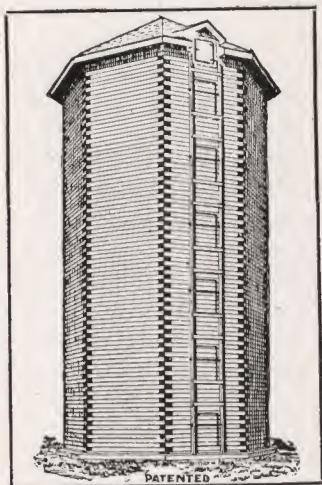
keep as well in a square silo as why rain water will not keep as well in a square cistern as in a round cistern. These two propositions seem to be very closely related in plain, everyday sense.

The old theory that ensilage gets balled up in a corner, and does not settle as well as in the body of the container, seems to be pretty thoroughly exploded. As a theory it worked well for a while, and scared thousands of farmers into paying a heavy extra price to get circular silos, when in fact they could not afford to pay the prices exacted.

**INVEST—DON'T  
SPECULATE. USE CYPRESS**

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There is an octagon silo, made by spiking 2x4 pieces one on top of the other, that is in use by hundreds of



OCTAGON, AND IT WORKS.

farmers. And the testimonials produced in its favor would fill a book. Remember, it is not round, and yet it does the business.

What do you think of that?

## WHY SQUARE SILOS?

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Many farmers object to the round silo on account of its looks. They say it does not correspond with any other buildings on the place. For that same reason, many farmers like the square outside silo, even when it stands independent of the other buildings, because it has a more comely appearance. Surely the appearance of the buildings on a farm is a matter worth consideration. It is always desirable to have some sort of uniformity in their style of architecture, and the round silo and square other buildings do not gibe.

When one builds a square silo, say for example, sixteen feet square, and puts on it a gable roof, he has a building that may be made to correspond with the other structures on the place.

If he were building a double silo, and the outside of it were 16x32, he surely would have a very substantial struc-

## **"BUILT BUT ONCE" — USE CYPRESS**

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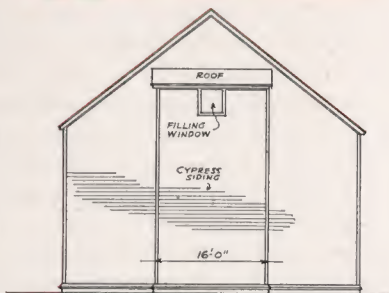
ture, and one which would look well to anyone particular about appearances. Besides this, he would have a strong, substantial building, one that need not be anchored to the foundation wall, and one that could stand against almost any gale of wind without guy lines.

One of the principal objections to the stave silo is that it will dry out when empty, and during hot weather; and unless the hoops have almost daily attention, is liable either to collapse or be blown down by the first gale of wind that comes that way. Neither of these contentions may be urged against the square silo, even if it has a circular interior. In this style the lining may be of either staves or matched flooring nailed to the frame so that it becomes a solid building, with automatically reinforced bracing in all directions.

Of course, care should be exercised that the lining, whether it be of staves or matched flooring, is thoroughly dry

## **CYPRESS** STOPS PROPERTY DEPRECIATION

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*END ELEVATION.*

SILO, ADDITION TO BARN. "SHANTY" ROOF.

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before being put into place. If this lining is made of the all heart wood Cypress there should be almost no shrinking or swelling, and the silo should stand practically air-proof for 25 years or more.

Cypress wood has been used almost exclusively in greenhouse construction for many years, and the endurance test given it there but adds to the character given "the Wood Eternal" by history. For centuries it has been famous for resisting rot influences.

## S I L O M A Y B E A N A D D I T I O N T O T H E B A R N

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As will be noted in the plans on the sheet which is folded in at the back of this booklet as a supplement, one of the most desirable forms of silo construction is that of an addition built on the end of the barn. In this case, a saving of one whole face of the siding is clearly made, and there is the further saving or convenience of having the feed doors open inside the barn.

This certainly is a great economic feature, as well as a convenience, for during the raw winter months, when a good portion of the country is covered with snow a large part of the time, it will be much easier for the farmer to enter his silo from the inside of the barn than to go out into the snow, climb a ladder and throw out his feed.

Then there is the further advantage of having the silo part of the barn so that it need not be built of such heavy



## **CYPRESS** BEST FOR "ALL OUT-DOORS"

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timbers, because it will not have to withstand high winds. The presence of the barn forming, as it will, a part of the structure, gives to it a stability that could only be obtained in an independent structure by the use of otherwise unnecessarily heavy timbers.

Then there is the added item of having the buildings together—having them practically under one roof. Having the silo built as an addition to the barn, it may have what is commonly called a "shanty roof." A gable roof in this case is not absolutely necessary.

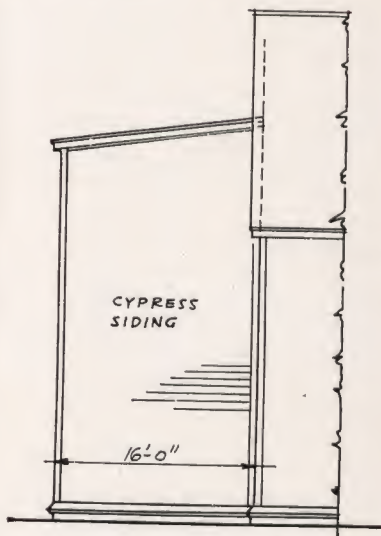
There is the further advantage in filling time. The silage cutter could be placed in the barn, and the work could be handled even if a heavy downpour were on outside.

All considered, this form of construction seems to possess more advantages than any other. Those who have tried it are very enthusiastic in their praise of it. It surely is worth a try-out.

If the farmer needs two silos, he may make the addition to his barn large enough to accommodate a double tub,

**INVEST - DON'T  
SPECULATE. USE CYPRESS**

or two tubs. Say. make the addition 16x32. This putting the two tubs in one inclosure, and making the silo an addition to a wall already built, saves exactly one-half in the siding.



• *SIDE ELEVATION* •

TWIN SILO. "SHANTY" ROOF.

## **MAKE *the* INSIDE TO SUIT**

---

Remember that the only silo which is a complete success—the only one that is worth while for a farmer to build, whether it costs him \$50 or \$500—is the one that will turn out pound for pound in perfect condition the ensilage that is put into it. As is already thoroughly explained, the keeping out of air and cold and the keeping within of all the natural juices in the feed, together with the heat incident to the chemical action known popularly as fermentation—this is the whole process of making perfect green feed for stock in winter, put into a few words.

There is no other way in which such complete insulation may be attained as in the square form of construction for the outside. This gives a large dead-air space all around the tub, and dead-air space is the best known non-conductor of cold in the world, next perhaps to the perfect vacuum. With most styles of silo construction, where do you get your dead-air space? (You get it with hollow tile, but what do you do when they freeze and burst? Note illustrations in this book of actual

## **"BUILD BUT ONCE" — USE CYPRESS**

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cases, where the losses were very heavy.)

So after you have built your square silo this book will not instruct you whether you should make the tub within square, octagon, of sixteen sides, or circular. As already intimated, if the builder has unusual faith in a stave silo he may make the inside framing of his silo building circular and set in the staves, spiking them to place. If he would have the tub thoroughly insulated he may put building paper or tar paper over the framing, to back up his staves.

If, however, the builder is satisfied that good four-inch matched flooring will be plenty stiff enough, and the ablest opinion is that it has never proved otherwise, he may put this in place of the staves, nailing them to place with flooring nails. Again, if he would make sure of his insulation he may back up his flooring with either ordinary building paper or tar paper. Whether this circular tub shall be of staves or of flooring the lining must be of Cypress wood and it is preferable that clear heart Cypress be used for this purpose.

No special instruction need be given

## **CYPRESS** STOPS PROPERTY DEPRECIATION

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here for the making of the circle inside the square building. Anyone can do that, but it is especially desirable that



TILE SILO ON FARM OF JOHN STRANGE, JR.,  
GRAND LEDGE, MICH. IT EXPLODED FROM  
HEAT & PRESSURE. COST \$475; LOSS \$1,000.

## **BEST FOR "ALL OUT-DOORS" CYPRESS**

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the square interior be cut into octagon form by corner braces before any real work is done on the circle. This makes the building of the circle very easy as the oblique corners of the octagon may be easily transformed into a perfect circle.

### **THE OCTAGON INTERIOR**

This form of construction is so very simple that wherever it is given a perfect trial it has proved very satisfactory. Those who throw a fit when a corner in a silo is mentioned need not have any alarm over the very dull corner of the octagon tub. It is so open that any attempted argument to show that ensilage will find lodgment therein and be held up and will not settle uniformly must appear, even to themselves, to be somewhat ridiculous.

This form of construction, as will be seen by the drawings in the supplement sheet folded into the back of this book, is extremely simple and gives to the structure unusual rigidity. When you add to the square framing the heavy braces spiked across the corner you have a strength of construction that will be truly amazing. If a hurricane should come your way and throw your

## **CYPRESS SPECIFY IT— INSIST ON IT**

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silo over it could not demolish it. The building could be righted and again set on its foundation with very little expense or trouble. Another advantage of this strong construction is that it resists the tremendous weight of the ensilage when the silo is filled and thoroughly settled. The sides cannot bulge nor spring and the tub within remains in exactly the form it was built.

This form of construction may be lined with nothing more expensive than good high-grade Cypress flooring four inches in width, or wider if necessary, matched, closely driven together and nailed to place.

Here, too, we cannot recommend other than Cypress flooring for this work. It should be dressed on the inside and if one is really solicitous about his insulation he should back up the flooring with building paper or tar paper as suggested for the circular tub already described.

### **OR EVEN A SQUARE TUB**

That the square tub is a total failure is not demonstrated. It will be noted by the reader that those who declaim the loudest against the square tub are those who never have seen one. There



## **INVEST—DON'T SPECULATE. USE CYPRESS**

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is plenty of evidence from those who have used them that the square tub gives perfect satisfaction.

We are in receipt of a letter from a man who uses a square tub and puts in his fodder without cutting—puts in corn exactly as he cuts it up in the field—and this tub with its square corners and with feed put down contrary to the common idea of the most approved methods, kept perfectly and his stock ate up every scrap of it.

This square tub will have all around it an eight-inch dead-air space which will prove a perfect non-conductor of heat and cold in connection with the two wooden walls that imprison it. The lining for this tub should be of Cypress flooring matched, dressed on the inside face and closely nailed to the framing. Again, if perfect insulation would be had it is suggested that building paper or tar paper be spread on the framing for a backing to the lining of the tub. If Cypress is used no paint of any kind is necessary. It is suggested, however, that flooring be well driven home before it is nailed so as to give to the lining of the tub an absolutely air-tight construction.

## LUMBER BILL FOR THE CYPRESS "EVEN TEMPERATURE" SILO

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Silo to be 16x16x20 ft. to Top of Plate.

4 pieces 4x8 in. x 16 ft. — sills.

64 pieces 2x8 in. x 14 in., and 64 2x4 in. x 14 in. corner posts.

48 pieces 2x8 in. and 48 2x4 in. x 16 in. corner posts.

60 pieces 2x8 in. x 16 ft. girts and plates.

56 pieces 2x8 in. x 10 ft. octagonal braces.

16 pieces 2x8 in. x 14 ft. feed door jambs.

12 pieces 2x8 in. x 16 ft. feed door jambs.

18 pieces 2x4 in. x 12 ft. rafters.

12 pieces 2x6 in. x 14 ft. gable studs, each piece makes two studs.

184 lineal ft. 1x10 in. sofit.

184 lineal ft. 1x9 in. fascia, ripped in two.

184 lineal ft. 1x9 in. frieze (may be omitted if battens are used.)

## **"BUILD BUT CYPRESS ONCE"—USE**

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3½ M Cypress shingles.

450 ft. p. and m. 1¼x4 in. roofing.

1,600 ft. p. and m. outside boarding  
or 1,300 ft. 1x10 in. dimension.

1,600 ft. of battens, if planed dimension stuff is used.

1,200 ft. planed and matched flooring,  
1x4 in. for inside boarding and covering space from octagon brace to corners.

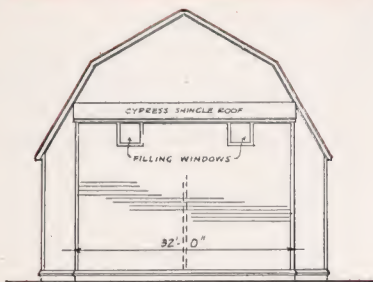
1 window 3 ft. sq., 4x12 in. light.

If you are interested in this form of silo construction we suggest that you take the foregoing lumber bill to your local dealer and have him give you the figures for the cost of the wood material to be used in it. So far as possible insist on having Cypress lumber, and try your best to get Cypress framing stuff. As you understand there is more or less moisture oozing through the lining of the silo, this will have a tendency to rot away the 2x8 girts and octagon braces.

Do not consider the use of anything but Cypress for lining and see to it that

## **CYPRESS** STOPS PROPERTY DEPRECIATION

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• END ELEVATION •

### TWIN SILOS. "SHANTY" ROOF.

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you get stuff that is well matched. It should be dressed on one side.

Nothing but Cypress shingles will give you full value on the roof and in the case of the Cypress shingles be certain that you get a high-class grade.

Lumber dealers who are up to the times and who take enough pride in their own business to want their customers to have the one best material for whatever particular use may be in question, are always glad to supply

## **BEST FOR "ALL OUT-DOORS" CYPRESS**

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their trade with Cypress, "the Wood Eternal," in all grades and dimensions.

Some few retailers, here and there, however, are found to recommend some other wood (on which they may make a larger profit), even when their good customers ask for Cypress. In such a case you may favor at your own expense by letting him sell you a substitute lumber, or you may put your own welfare first and make your order conditional on his giving you "the Wood Eternal, and nothing else."

This degree of standing up for your rights, as a man of independent knowledge and judgment, will seldom result in your having to go to another yard. The dealer will see his own larger interest in helping you to make your investment just as long lived as possible.

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Concrete silos need to be "doped" inside with a sort of cement slush every year. Nice job, is it not?

## **IF THE SILO IS SMALLER**

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If you should build, as an addition to your barn, or as an independent building, a silo 14 ft. square on the outside, lighter framing materials may be used. Undoubtedly the girths should be as near together as in one 16 ft. square, but instead of using 2 x 8, 2 x 6 will probably carry the load.

This will materially lessen the expense and will probably bring as good results as if the 2 x 8 were used. Not alone may you use 2 x 6 for girths but the corner braces, to bring in the octagon form of construction, may be of 2 x 6 as well.

At this point it might be added that for the weatherboarding No. 1 barn Cypress is undoubtedly the very best. No. 2 barn is a little cheaper and many think as good results are attained with its use as with the No. 1. For the lining Cypress must be used and for the joists and corner braces nothing else will give

**INVEST—DON'T  
SPECULATE. USE • CYPRESS**

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you more perfect satisfaction than Cypress wood.

In this connection it may be cited that a Cypress porch floor has many times been removed in order that the joists on which it was laid might be replaced. The joists were of other wood than Cypress and in these cases the floor really outlasted the supports which carried it.

Always require heart Cypress, especially for the lining of your silo. Do not let any sap wood into this part of the structure. Sap is not necessarily classed as a defect, but it is a matter of common knowledge that sap wood possesses only a fraction of the power of endurance of heart wood.

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An octagon silo made of 2x4 is good construction, if it is built of heart clear Cypress. There will be no rot-down to it and it will shrink and swell very little.



## **CYPRESS THE WOOD ETERNAL**

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### **AS TO THE WORK OF BUILDING THE CYPRESS "EVEN TEMPERATURE" SILO**

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Two men ought to lay the stone foundation in a day; perhaps they can do it in less time. This should be of rubble stone, if you have not ordinary field stone for the purpose. The foundation may be laid either in common lime mortar or in cement. The flooring may be made of cobble-stone and cement, but if you can get good blue clay and hammer this down well with a beetle or puddler, you will have as good a floor as you will need.

We have it from Mr. Berry, Redford, New York, that 11 days for an ordinary carpenter and laborer should build this silo complete. Full specifications and detailed working plans for it will be found later on in this booklet.

We are informed by Mr. Berry that 100 pounds of common 8d nails, 100 pounds of common 20d nails, 25 pounds

## **"BUILD BUT CYPRESS ONCE" — USE**

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of 60d common nails, 25 pounds of 8d flooring nails and 10 pounds of 3d common nails will do the job. The cost of these nails you may readily get from your local hardware dealer.

From the foregoing lumber bill, together with the estimate of the number of days' work necessary for putting in the foundation and putting up the structure, and with the estimate of nails required you can readily arrive at cost of this building.

Compare the cost of building one of these silos with the time and expense involved in putting up a concrete silo, as outlined in the report of Prof. Jeffery contained herein, and then make your selection.

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There is in Cypress wood an essential oil called Cypressene that is a natural preservative. This is the substance that imparts to the wood its marvelous qualities of endurance. No other wood has it.

And it is not an oozing resin, or gum.

## BUILT INSIDE THE BARN

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One of the most inexpensive silos for the farmer of moderate means is that built in the barn. This is done by cutting off a portion of the bay and after putting in the frame work the interior is sealed up and down either with narrow flooring or with ceiling stuff. In the East many of these already have been built, especially in northeastern New York where the winters are often very cold.

The framing of this silo built in the barn should not only be of strong timbers but of something that will not wholly rot, like some kinds of lumber, nor even be in a hurry to start, like most other woods. By all means the 2x4 and 2x6 stuff should be of Cypress wood and there is no excuse for using other than Cypress in lining this kind of a structure. No other wood so long resists the action of acids. Many of the other woods rot quickly unless tarred or painted, and even these preparations will quickly yield to the action of acids.

These built-in silos are finished either circular, octagon or square—per-

## **T H E W O O D T H A T L A S T S C Y P R E S S**

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haps the most of them are square on the interior. A recent letter from Samuel Weir of Clayburg, New York, tells how he built a silo in the hay mow of his barn, and the success he attained by so doing. His was finished square and, as he says, it gave him good satisfaction. Following is a copy of his letter :

"Yours of June 6th received and in regard to silos I took a common hay mow 30 x 13 feet, dug out three feet below the sill the whole size of the mow, laid a stone wall all around, letting it project inside the sill four inches; next I put in a cement bottom, letting it come up on the laid wall so as to give a smooth surface; next I put in beams midway between the top-plate and sill all around, leaving them flush with inside of sill and plate; next I boarded around with rough lumber extending from top to bottom plate with bottom resting on my cement wall, leaving doors and windows wherever needed to feed from or to fill silo; then I took three-ply roofing paper laid all around on inside, strips running up and down; next I boarded around with one inch

## **CYPRESS BEST FOR "ALL OUT-DOORS"**

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matched lumber planed on **one** side with rough side next the paper; made doors and windows with the same material; gave the inside a coat of tar paint, cemented around the bottom of boards where they rested on wall, so as to make it air tight; filled it with corn and it proved to be a very satisfactory silo. Corn kept well and cows looked fine in the spring.

"Hoping this description may be clear to you, I remain,

"Yours truly,

(Signed) "Samuel Weir."

There are several of these built-in silos in Mr. Weir's community and we are informed that the most of them are square. However, if one were really alarmed about the square style of construction and were afraid that it would not preserve the feed perfectly because of its form, there is no reason why the inside should not be made circular or octagon.

One advantage this sort of a style has over an independent building is that the feed doors are not exposed to the weather. One may go into his silo

## **INVEST—DON'T SPECULATE. USE CYPRESS**

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and get the feed he needs without having to go out of doors. Besides it is bound to be frost-proof, which is very much of an item in silo building.

In its issue of April 5th, 1913, *The Rural New-Yorker*, on page 520, a contributor who signs himself J. E. R., writes of his experience with a silo built into the bay of his old barn. His was 18 ft. deep and 12 ft. wide. This correspondent does not state whether it was of square or circular construction, but he does say that up to the time he sold his farm, which was eight years, the silo was still in fair condition. He states that during the eight years he used it it gave him good satisfaction, and further that several of the silos in his neighborhood which were made in the same manner gave good service for a number of years. He contends that these were not only cheap, but were very desirable to have.

The silo of Mr. Weir cost less than \$60. Two other built-in silos in his community, not so large as his, cost less than \$40 each.

And they did the business.

## **T H A T    C E M E N T O R G A N I Z A T I O N**

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If any one thing is well established in the silo proposition it is that concrete, cement blocks, brick, tile and metal structures for silo purposes are worse than failures. They cost a lot of good money to begin with, and they do not deliver the silage in good shape to end with. Their principal extravagance lies in the second proposition. They are cruelly wasteful, even if they do not fall down or explode.

Yet many of them are still being built. The cement industry is aggressive, is powerfully organized, and never fails to get attention for its claims—the result of this being that the average farmer does not know how to distinguish between real information and paid, or inspired, publicity.

A recent news item in an Oklahoma farm paper said that in many districts about every farmer who builds a silo is a paid silo agent. This is especially true of the concrete silo. Not seldom the voluble and voluntary champion who advises you to build one of concrete may be an agent, more or less directly.



# CONCRETE SILO COLLAPSE

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Photographed on farm of Mr. Mullen, near  
Shaftsbury, Shiawassee County, Mich. Loss,  
including silage, about \$1500. No insurance.  
(Illustration by courtesy Weyerhaeuser Lumber Co.)

*Page Seventy-nine*

## **CYPRESS STOPS PROPERTY DEPRECIATION**

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And this cement advertising is the most insidious in the world. An instance will illustrate the point: In the April 23, 1913, issue of the *Nebraska Farmer* appeared the following news item, contributed by a supposed farmer: "One of my neighbors has used a wooden silo for six years. It has blown down twice and has shrunk 13 inches in circumference. He advises me to build a cement silo, as the cost is so much less and the life so much longer. What do you advise?" ———. This was signed. We took the trouble to write to the person who signed this letter, and his answer disclosed that he was the builder of cement silos and tanks. It was simply his underhanded way of advertising cement silos and tanks.

So it may likely be with nearly every news article one reads in the farm press regarding the improper uses of cement on the farm. The writer of them has an axe to grind. Cement is a fine and useful material for certain purposes, but the agent wants you to buy it for all purposes—he wants you to buy it, because he has it to sell, regardless of whether it is your best purchase or not. Just do your own judging.

## **CONCRETE SILOS NOT RIGHT**

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Notwithstanding the variety and persistency of the "puffs" for cement anyone who follows the farm press carefully is impressed with the large number of failures in concrete silos reported by disappointed owners. In one issue of one of the leading farm papers of the West last spring there were reported three cases of lost ensilage. Two of the silos that turned out rotten silage were of concrete; the other was of brick construction. The brick container had frozen, and the farmer fed some of the frozen silage to his chickens, and the fowls died.

From the *American Agriculturist*, May 31, 1913, we quote the following editorial that appeared in the "Walks and Talks with the Editor" column. The heading was, "Materials for Silos." The editor said:

"A few years back any kind of wood

**CYPRESS** BEST FOR "ALL  
OUT-DOORS"

## ACTUAL PHOTO TAKEN ON THE SPOT

(Name of owner withheld by request.)



This block silo was re-inforced by hoops and every precaution was taken, yet it burst the second time it was filled. "Better stick to good old wood." CYPRESS lasts the longest.

*Page Eighty-two*

**INVEST—DON'T  
SPECULATE. USE CYPRESS**

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was used and silos were constructed in various shapes. The manufacture now has been brought down to a science and only the best woods and best forms and best silos are now being advocated and promoted. Wooden silos are still most popular and still the cheapest, yet concrete silos and brick silos have been frequently advocated and constructed. More complaint has come to me about this kind of silos than of any other kind. Some say the silage does not keep so well as in the wooden kind, and occasionally these silos crack and thus give poor satisfaction."

In the issue of February 8, 1913, *Rural New-Yorker*, George Bennett, Middlesex Co., Mass., says:

"The worst trouble with cement silos is loss of silage through rotting—due to sweating caused by sudden changes in temperature. The cement is a perfect conductor of heat and cold, and after a cold spell, when the weather turns warm, it causes the cement to sweat on the inside of the wall, and the moisture rots the silage."

## **CYPRESS    T H E W O O D E T E R N A L**

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Further on in his article, Mr. Bennett says:

"Another reason why you should build a wooden stave silo is that the extra cost of cement over wood placed at interest in your bank would build you a wooden silo every ten years. That makes it as everlasting as cement is supposed to be, and without its many objectionable features."

And there are a plenty of objectionable features to cement. If the wood silo were only built of Cypress it would outlast cement, and it would not crack open.

In the issue of February 28, 1913, *Star-Farmer*, St. Louis, Hugh G. Van Pelt has an article, in the course of which he says:

"Of late cement silos are attracting considerable attention—especially on farms where plenty of good gravel is accessible. In the past their cost, together with the fact that the silage did not keep as well as it did in a wooden silo, has prohibited their use."

## **"BUILD BUT CYPRESS ONCE" — USE**

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Except among those who have an object in view for boosting cement, we think the opinion is universal that wood is the best material for silos.

Again we shall quote from the *Rural New-Yorker*. In its issue of February 15, 1913, in a contributed article, signed D. S. N., West Rush, N. Y., a silo trouble was recited. The writer tells of a wooden silo that sits on a stone foundation eight feet high. He says:

"The wall was pointed out as smooth as possible, then plastered with a one to three mixture of cement and sand, followed by a whitewash of cement and water, and the silage always spoils a little around the edge of the stone, but I never saw any spoiled in the tub."

The wood made good.

He contended that the cement wall lets in the air, but in all probability the stone and cement chill the fodder at the siloing time, causing the chemical action to be arrested and rotting ensues. That is the principal evil in cement, stone, brick and metal silo construction. It is a real, a scientific defect.



## **SCIENCE CONDEMNS CEMENT**

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Without doubt the Storrs Agricultural Experiment Station, located at Storrs, Conn., is, at the same time, one of the most scientific and most practical of all the experiment stations in the country. Surely it is regarded as such by those who know of its work as may be seen from the almost continual quotations from its publications by farm papers of the best class. Professor W. M. Esten, a professor in the Connecticut Agricultural College, is in charge, and has written the following relative to the scientific reasons for cement silos being impractical:

“The acids in silage corrode and disintegrate the cement. After long years the cement walls become rough and crumbly. The alkaline nature of the cement neutralizes the acid in silage and insofar as the acids are neutralized is the keeping property of silage diminished.

## **THE WOOD CYPRESS THAT LASTS**

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"From a recent experiment it was found that one ounce of pure cement would neutralize the acids in 20 ounces of silage or one ounce of cement would neutralize 1 4-10 ounces of chemically pure hydrochloric acid. From these experiments it would seem that silage, if it did produce the normal amount of acid would soon be neutralized in contact with cement."

But actual experience proves that it does not take a long time for cement silo walls to become rough and crumbly. No sooner does acid begin to form in ensilage than it begins to eat holes into the cement walls. Whether these walls be of the monolithic style or of concrete blocks, the effect is absolutely the same.

This not alone crumbles the walls of the silo and starts disintegration, which, unless patched, will lead to the entire destruction of the silo, but fills the feed around the edges with sand, something which we contend is not especially good feed for stock. Is it? This fact about

**CYPRESS** SPECIFY IT—  
INSIST ON IT

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SILAGE-FED; NOT FED SILAGE AND SAND.  
A CONCRETE SILO THAT HAS BEGUN TO  
SLUFF OFF TURNS OUT SILAGE AND SAND.

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the action of acids on the cement is an added argument to the other two against cement, the first of which is that the cement wall is porous and admits air. The other is that cement, being a perfect conductor of heat and cold, the walls carry off the heat during the period of fermentation, when ensilage is making and requires a steady temperature.

**INVEST—DON'T  
SPECULATE. USE CYPRESS**

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## **A S C I E N T I F I C D E M O N S T R A T I O N**

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In its Bulletin No. 70, the Storrs Agricultural Experiment Station recites its experience in three experimental silos. These minature silos were none other than three two-quart milk bottles in which well ground corn silage was placed and tightly corked. One of these bottles was placed where it was exposed to an even temperature of 40° F., another at 50° F., and another at 70° F. This stuff was committed to the bottles on October 28, 1911.

On December 15, just forty-eight days after the bottles were corked, they were opened for examination. The external appearance of the silage in the bottles was as follows:

That which was exposed to 70° F. had the most normal looking silage. The 50° F. bottle had the most unfavorable and the top of the third bottle,

## **CYPRESS    T H E W O O D** **E T E R N A L**

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the one exposed to 40° F. had white patches, which, on examination, proved to be yeast mostly in the spore stage. The two bottles exposed to the lower degrees of temperature were moldy on top and had a musty smell while the 70° F. bottle had no mold, but gave out a strong acid smell.

We here quote the language of the Bulletin, as it appears on page 13, which seems to clinch effectually this matter of putting ensilage into concrete, stone, brick or metal containers. This experiment has entirely to do with the matter of the fermentation of ensilage, that process which is commonly spoken of as occurring during the "siloining time." The matter quoted is as follows:

"This experiment indicates that the temperature is a distinct governing factor. The highest temperature favors the production of lactic and acetic acids. The 50° F. temperature favors the production of the stronger aromatic acids like propionic and butyric. The

## **"BUILD BUT CYPRESS ONCE" — USE**

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40° F. temperature does not favor the production of acids, but does favor destructive fermentations giving an unpleasant flavor and odor. The temperatures for producing preservative qualities are 70° F. and above.

"This experiment explains why silage does not keep as well in cement, stone, or brick silos. The cement, stone, and brick conduct away the heat generated in a silo and the acid fermentation is checked unless the temperature of the air at siloing time is much warmer than normal. Another factor is that cement and brick are porous and allow the silage to get air, which causes it to spoil. The last factor can be remedied by troweling on the inside a thin coat of rich cement. The appearance of silage is not a complete guide as to its quality. It may appear to keep perfectly at the edges of a cement silo, but the acid and chemical tests are necessary to prove that it is normal silage. The odor of silage is the next best test."

## **ACIDS ABSOLUTELY N E C E S S A R Y**

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The consensus of scientific opinion as well as of actual practical experience, seems to indicate that the forming of acids is the most essential thing in the making of raw corn and other green feeds into the best of ensilage. This process, unless it is well guarded, will not develop all there is in the feed and place the feed in such shape that it will keep on indefinitely; therefore, unless the silo is of a proper construction, unless the material of which it is made is a non-conductor, the heat which is necessary in fermentation will be carried off and wasted on the outside air. On this subject we quote again from Bulletin 70 above mentioned, at page 14:

"The acidity of silage is the most important factor connected with the fermentation. It is the acid which preserves the silage and prevents destructive fermentation which would change



## **THE WOOD THAT LASTS CYPRESS**

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it to humus. The acidity combined with the lack of air contact are the two elements of preservation. If acid-destroying organisms are kept from silage it will keep indefinitely. It is less important to know how this acid is produced than to know how to control the conditions which favor its production. But the study of acid production leads to the proper control of its production."

Really, insulation is the most important factor—insulation and even temperature.

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Professor O'Cock, Wisconsin Agricultural College, has advised owners of concrete silos to whitewash them inside with a thin mixture of cement and water *at least* every second year. That means an annual expense not necessary if the silo is of wood.

Cement costs more to begin with than wood, and the upkeep is much greater.

Wood is the only "best" silo material.

## **ONE MORE WITNESS**

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We have before us now Bulletin No. 2 of the University of Illinois Agricultural Experiment Station, and among the notes we read this one:

“With a silo of stone, brick or cement, the ensilage rotted at the edges and top to the extent of one-third of the entire amount.”

Later on in the Bulletin the experience was printed in full:

“The silo used consisted of a room 11 feet 8 inches x 16 feet x 9 feet high, in the basement of the south barn on the university farm. One side wall was stone, the other walls were brick. The silo was opened March 10, 1888, six and one-half months after it was filled. The ensilage of the first foot and that of 12 to 14 inches on the sides and somewhat more in the corners was rotten. Particular attention is called to the fact of the better preservation next the boards. It has an important bearing on the construction of the silo, and would seem to indicate that boards are better adapted to this purpose than stone, brick, concrete, etc., apparently because boards are a better non-conductor of heat.”

*Page Ninety-four*

## THE LAST WITNESS

Dean Henry, the man who made famous the Agricultural College in Wisconsin University, once wrote the following, which has been very widely quoted. It is possible that the reader of this booklet has already seen this statement. However, we deem it so important that we give it space in this little booklet:

“Probably very few stone silos will be built in the future, as experience shows that a stone wall chills the ensilage during the curing process, and if it does not seriously injure that portion next to it to a thickness of several inches, it renders it, at least, less palatable than ensilage nearer the middle of the silo. The reason, in my judgment, that the silo has not won more friends in the Eastern states is owing to the common use of stone in its construction. On our experimental farm at Madison our first silo, built in 1881, was of stone, and our conclusions in regard to ensilage were made up from results obtained from this silo; *had we put up a wooden*  
Page Ninety-five

## **CYPRESS "BEST FOR "ALL OUT-DOORS"**

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*structure, I am confident our results would have been worth vastly more to our people than they have been."*

If one doubts the conditions cited in the foregoing quotations from the very best authorities in the land, he has but to follow the current discussions of the subject in the farm papers. To be sure, cement is such a wide advertiser in this class of publication that the editors are loathe to discourage the use of a commodity which brings to their papers so large an annual revenue, but after all the allowances that must be made because of the operation of this implied mercenary influence, the papers have much valuable information which confirms the foregoing scientific conclusions, in strong support of wood as the inevitable material for all intelligent and economic silo building.

Seldom do you read of spoiled or frozen ensilage that is contained in other than a cement, brick, stone or metal silo. Seldom do you read of rotten ensilage being taken from a silo built of wood material. There can be but one rational conclusion—wood is in every way the superior of the substitutes for wood; in fact the only perfect silo is the one made of wood.

## **CEMENT TOO EXPENSIVE**

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Aside from the scientific argument, in addition to the almost universal report of losses in concrete silos by reason of rotting, there is the further argument against all of these kinds of construction that the initial cost is altogether too heavy. It seems as if the rush to build silos has reached almost a panic stage and conscienceless manufacturers are taking advantage of the condition by making prices on some of these styles of construction that are almost prohibitive, and really should be absolutely prohibitive to the man who cares what value he gets for his money.

Of course, the man with the patented "forms" is always abroad in the land. He has his little axe to grind. He has a patented contrivance either for the manufacture of cement blocks or for the making of the monolithic style of construction. He will tell you in a very cheerful tone how very cheap it

## **CYPRESS STOPS PROPERTY DEPRECIATION**

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is to build his kind of a silo, if you will but pay him about three or four times the cost for his little machine, or device.

Then, there is the real, straight-out, home-made silo fellow who would have you buy from him a few hundred sacks of cement and make your own container. The cement merchant will tell you that it is easy enough to build a concrete silo, especially if you come to him for about thirty or forty barrels of the raw cement—just as if anyone can mix cement and gravel together and have it come out a perfect concrete product. We contend, and the reader of this booklet knows, that there is very much of a science in the proper mixing and wetting and handling of the ingredients that go into concrete construction, and it looks to us as if the element of chance or good luck is not at all wanting. Everyone who knows anything about cement work can testify that some of the best looking jobs, to begin with, have turned out the very poorest after

they have been exposed to the action of the elements for a year or two.

But for the sake of argument, we will suppose that anyone can mix cement and gravel and make a silo. We will here quote from Farmers' Bulletin 405, United States Department of Agriculture. This is the experience of Prof. J. A. Jeffrey of the Michigan Experiment Station. He describes the process for making a solid wall cement silo in the following language:

"This silo has an inside diameter of 14 feet and a total height of wall above floor of 30 feet, including 6 feet of cobblestone-cement foundation. The floor stands 5 feet below ground. The foundation wall is 12 inches thick and extends 6 inches below the floor. The lower 12 feet of the cement wall is 10 inches thick. The upper 12 feet is 8 inches thick.

"The doors of the silo, four in number, are 24 inches by 36 inches. They are especially well made of two thicknesses of lumber, with beveled edges, refrigerator style, and fit snugly into



## **CYPRESS SPECIFY IT- INSIST ON IT**

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equally well-made frames, which in turn are built into the walls. The doors are set into the frames from the inside, and are held in place by the silage.

"In construction of this silo were used:

30 barrels cement.

35 cubic yards sand.

1½ cords stone.

1 bale barbed fence wire for reinforcing the walls.

"For forms there were used:

1,100 feet lumber 7/8 inch by 4 inches by 16 feet.

4 hoops half-round iron with lugs.

30 pounds nails.

"A total of thirty-one days of labor was expended upon the construction. It would require considerably less labor for the same parties to build another silo of the same size, after having acquired more experience."

Now we are ready to submit to the reader of this booklet that the foregoing very specific instructions were almost certain to lead the proposed builder of a silo into a labyrinth of troubles. To begin with, who is to handle this kind of a job, even with all its specific details and carefully laid plans?

## **THE WOOD THAT LASTS CYPRESS**

Is the average farmer to undertake this? Is the average worker in concrete—the man who builds sidewalks or lays the cement floor in the cellar—to be trusted with this complicated undertaking?

At the very outset you are required to buy 1,100 feet of lumber and when you get through using it in your silo what value will it have? What can you use it for? The presence of such great quantities of moisture as are necessary for this kind of work will warp and twist any lumber, except Cypress, and put it in good condition to begin to rot. Then this 1,100 feet of lumber will cost you a nice little penny, and instead of continuing to work for you as a part of your silo, it will be in the discard. The four heavy half-round iron hoops with the lugs are quoted in some of the catalogs at about \$2 each, and they will be worthless after the job is finished—you cannot use them in your new and fancy concrete silo, and the thirty pounds of nails will be a total loss, and nails are not being given away these days.

On the face of it the whole undertaking appeals to the more conservative

## **CYPRESS SPECIFY IT— INSIST ON IT**

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mind as no better than a rash and ill-advised experiment. It looks as if you will be purchasing at a heavy cost a sweet little morsel of experience.

Of course, the cement dealer will have your money for thirty barrels of his commodity, the hardware merchant will have your coin for a bale of barbed-wire fencing, four hoops with lugs and thirty pounds of nails; the lumberyard which you patronize will have sold you 1,100 feet of boards, and the chances are more than even that you will reap a jolly little experience, and if you need a silo and must have it you will have to adopt some other plan than the one so beautifully detailed above.

There are only two safe courses for you to pursue. One is to buy a ready-made article and have it carefully set up and pay the price which many of them ask, or adopt the plan given in this booklet and build one which is so simple in construction, and for which the specifications and details are so full and complete that you cannot possibly err, and with which you will have no wasted material whatever.

## **EIGHTEEN POWERFUL CONDENSED REASONS WHY YOU NEED A SILO**

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1. It makes a great saving in feed. All the ensilage is eaten. With hay or other dry fodder much is rejected and is thrown out with manure.

2. It makes a great saving in labor. The same amount of feed may be produced, harvested and stored with less than half the cost.

3. Ensilage produces a steady and even flow of milk all winter. This is especially desirable because at that time of the year dairy products bring their best price.

4. Ensilage saves to the farmer the buying of a large amount of milled feed which at all times is expensive.

5. Ensilage makes a better and cheaper feed for beef cattle and presents them at the market in a more sleek and attractive condition.

## **CYPRESS SPECIFY IT— INSIST ON IT**

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6. Ensilage is the most economical feed yet discovered, because it puts into palatable and nourishing form that part of the fodder which otherwise is almost a total waste. In other words, it can save to the country the "billion-dollar waste."

7. Ensilage saves to the farmer a large investment in land. A farm of 80 acres under the modern system will support as many dairy cattle as 120 acres under the dry-feed system.

8. Ensilage saves to the farmer a large sum which otherwise would need to be invested in barn buildings. A cubic foot of hay in the mow weighs five pounds, a cubic foot of ensilage weighs forty pounds.

9. Ensilage furnishes to the farmers stock pasturage the year round. A little dry feed is used, but the best feeders throw out a little hay to the cattle stock, even when pastures are the best in summer.

10. Besides the saving in labor, ensilage may be harvested and put away in

## **T H E W O O D E T E R N A L C Y P R E S S**

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any kind of weather. That operation does not depend on sunshine as does haying.

11. Ensilage, if put away in a well-constructed wooden silo, is secure against rain and snow, frost and hot weather. The farmer who feeds corn fodder in winter is compelled to dig it out of the snow during a portion of the cold weather. He cannot provide barn storage for all the dry fodder of this kind that he will need to use.

12. Ensilage fodder is harvested early and taken off the ground, leaving the soil ready for another crop.

13. Ensilage is a good feed for all the domestic animals on the farm, cattle, sheep, horses, mules, swine and poultry. All do well on it the year round.

14. Ensilage furnishes good feed in the summer and early fall when the pastures get dry and barren. It is al-

## **CYPRESS** BEST FOR "ALL OUT-DOORS"

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most a perfect substitute for perfect pasturage.

15. Ensilage makes every dollar's worth of corn production worth two or more to the producer.

16. The farmer who puts down ensilage and still raises hay, as he will have to do if he would keep his land in productive condition, may sell a good part of his hay crop. This enables the farmer to turn into ready cash, without the work of feeding it, a product of the soil that heretofore has caused him much labor to dispose of.

17. Ensilage makes more milk, sweeter milk; more cream, sweeter cream; more butter and better butter.

18. To sum up the whole situation, every farmer needs a silo and he needs one so constructed that it will not freeze in winter nor chill in the fall while ensilage is maturing. To accomplish this, he must have a wood silo, and Cypress is the best of silo woods.



## THE WOOD CYPRESS THAT LASTS

### SIZE AND CAPACITY OF THE SILO

In order to make the text of this booklet complete and so that it shall cover carefully every phase of information the farmer will need when he comes to build his silo, we append here an approved table showing the capacity of silos of different size.

Of course, a square silo of 16 feet diameter would have a greater carrying capacity than one of circular construction, but it is safe to figure the octagon interior by the table given below, which was made for the circular form:

Inside Diameter	Height	Capacity in Tons	Number of cat- tle that can be fed 40 lbs. per day for 200 days
10 ft.	24 ft.	37	9
10 ft.	26 ft.	40	10
10 ft.	28 ft.	44	11
10 ft.	30 ft.	47	11
12 ft.	24 ft.	54	13
12 ft.	26 ft.	58	14
12 ft.	28 ft.	63	15
12 ft.	30 ft.	68	17

# CYPRESS SPECIFY IT— INSIST ON IT

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Inside Diameter	Height	Capacity in Tons	Number of cat- tle that can be fed 40 lbs. per day for 200 days
12 ft.	32 ft.	73	18
14 ft.	24 ft.	73	18
14 ft.	26 ft.	80	20
14 ft.	28 ft.	86	21
14 ft.	30 ft.	92	23
14 ft.	32 ft.	99	24
14 ft.	34 ft.	107	26
16 ft.	24 ft.	96	24
16 ft.	26 ft.	104	26
16 ft.	28 ft.	112	28
16 ft.	30 ft.	120	30
16 ft.	32 ft.	128	32
16 ft.	34 ft.	139	34
18 ft.	30 ft.	152	38
18 ft.	32 ft.	162	40
18 ft.	34 ft.	176	44
18 ft.	36 ft.	190	47
20 ft.	30 ft.	188	47
20 ft.	32 ft.	200	50
20 ft.	34 ft.	218	54
20 ft.	36 ft.	235	58
22 ft.	32 ft.	243	60
22 ft.	34 ft.	263	65
22 ft.	36 ft.	285	71
22 ft.	38 ft.	307	76
24 ft.	36 ft.	339	84
24 ft.	40 ft.	393	98

## THE WOOD CYPRESS THAT LASTS

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### SPECIFICATIONS FOR BUILDING CYPRESS "EVEN TEMPERATURE" SILO

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The designer of this, Mr. D. P. Barry of Redford, N. Y., states that many stave silos in his neighborhood had to be guyed to keep them from falling down, and that concrete and tile did not stand up against cold weather. The plan here shown is cheap to build, practical and safe against extremes of weather. Even temperature and insulation are essential in silos. A most important economic point is the fact that all the lumber needed is of dimensions that are regular stock in every lumber yard.

The full height of the structure should be about 30 feet. To begin with, the posts are made of 2x4 and 2x8 spiked together, to make 8x8, leaving a hollow in the post of 4x4 inches. Heavy timbers might be used if one likes, but that would increase the cost, without adding to the strength. These posts are cut short, at the bottom only 14 inches long, in order that the girths may be nearer together where the pressure is great. You will note that in the Lumber Bill

## **CYPRESS THE WOOD ETERNAL**

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these short sections of the posts are provided for. One may have the 2x8 and 2x4 material cut into proper lengths at the lumber yard, saving much work when building. Near the top the sections of the posts may be 30 inches long.

After the foundation is in, the sills are laid, and if they are of Cypress they need not be more than 4 inches thick, but they must be 8 inches wide. These may be lapped and spiked; not necessary to frame them. Four sections of the posts are then cut, not more than 14 inches long, and these are toe-nailed to the sills. Then spike a set of girths, lapping them, and putting on the octagon braces as shown in Fig. 4. This is then spiked on top of the four short posts. Girths and braces should be 2x8, and of Cypress.

Continue this operation until you reach the needed height, and your frame is up. Cover it with vertical boards, or ship-lap, for all the dead-air spaces, but do not take chances on the weather. To have a cinch against frost it might be well to shingle over the boards, and Cypress is the best for that purpose. Inside put on matched flooring vertically, and by all means do not trust any other wood but Cypress to wrestle with the

## **INVEST — DON'T SPECULATE. USE CYPRESS**

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acids of ensilage. Paint or not as you feel like, for Cypress will last practically forever without.

Some farmers seem to be deathly afraid of corners, and those may round off the mild octagonal angles, if they like. But these low-pressure corners will not hurt anybody, nor any ensilage either, in the opinion of the best judges. A ventilator is provided for at the bottom, and this should have on it an airtight door, one that may be closed in very cold weather. Another ventilator is provided for at the top, with a door to be opened and closed by means of a rope. Ventilation is necessary, but bad in zero weather.

The top should be shingled with Cypress, and it will last practically forever. This silo is thoroughly practical, cheap and frostproof. By all means do not cut a girth; make the feeding openings between the girths.

There is great need of small-capacity silos, and here is one that may be built to any size. The plan herewith submitted is 16x16 feet, outside measure, and may be put up as high as one wants. Many silos are being built inside old barns in the East, as Mr. Barry stated in his vaulable article in *The Building Age*.

## **CYPRESS SPECIFY IT— INSIST ON IT**

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These are constructed by cutting off a quarter of a bay, and this may be done with small cost, only care should be exercised to select lumber that will resist the action of acids, and that will stand the constantly damp interior of the silo. Cypress is, of course, best known for resisting acid and rot influences.

One hears much complaint of concrete, because something (probably the acid) causes a softening of the inner walls, and stock is fed much sand. And some of them are too chill for a cold climate—they don't keep out the frost, which spoils ensilage. The same is true with stone and brick. Wood is the best non-conductor of heat and cold.

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We recommend Cypress **ONLY** WHERE IT CAN PROVE ITSELF THE "ONE BEST WOOD" for the given case. Will you write our "ALL-ROUND HELPS" Department?

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**Southern CYPRESS Mfrs.'  
Assn., New Orleans, La. and  
Jacksonville, Florida**

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*Insist on Cypress from your local dealer*

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# CYPRESS

"THE WOOD ETERNAL"



**BUY YOUR CYPRESS  
OF YOUR OWN LUMBERMAN**  

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**HE HAS IT—OR WILL GET IT**

**CYPRESS**   
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